

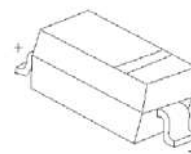
SOD-323 Plastic-Encapsulate Diodes

SOD-323

SCHOTTKY BARRIER DIODE

Features:

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version



MARKING: B0520WS: SD
B0530WS: C1
B0540WS: SF

Maximum Ratings @Ta=25°C

| Parameter | Symbol | B0520WS | B0530WS | B0540WS | Unit |
|--|-----------------|---------|----------|---------|------------|
| Peak repetitive peak reverse voltage | V_{RRM} | | | | |
| Working peak reverse voltage | V_{RWM} | 20 | 30 | 40 | V |
| DC blocking voltage | V_R | | | | |
| RMS reverse voltage reverse voltage (DC) | $V_{R(RMS)}$ | 14 | 21 | 28 | V |
| Average rectified output current | I_o | | 0.5 | | A |
| Forward current surge peak | I_{FSM} | | 5.5 | | A |
| Power dissipation | P_D | | 200 | | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | | 500 | | °C/W |
| Junction temperature | T_j | | 125 | | °C |
| Storage temperature | T_{STG} | | -55~+150 | | °C |
| Voltage rate of change | dv/dt | | 1000 | | V/ μ s |

Electrical Characteristics @Ta=25°C

| Parameter | | B0520WS | B0530WS | B0540WS | Unit | Conditions |
|-------------------------------------|------------|---------|---------|---------|---------|-----------------|
| Minimum reverse b-breakdown voltage | $V_{(BR)}$ | 20 | | -- | V | $I_R=250\mu A$ |
| | | -- | | -- | | $I_R=500\mu A$ |
| | | -- | | 40 | | $I_R=20\mu A$ |
| Forward voltage | V_{F1} | 0.33 | 0.36 | -- | V | $I_F=0.1A$ |
| | V_{F2} | 0.39 | 0.45 | 0.510 | | $I_F=0.5A$ |
| | V_{F3} | -- | -- | 0.62 | | $I_F=1A$ |
| Reverse current | I_{R1} | 75 | -- | -- | μA | $V_R=10V$ |
| | I_{R2} | -- | 80 | -- | | $V_R=15V$ |
| Reverse current | I_{R3} | 250 | 100 | 10 | μA | $V_R=20V$ |
| | I_{R4} | -- | 500 | -- | | $V_R=30V$ |
| | I_{R5} | -- | -- | 20 | | $V_R=40V$ |
| Capacitance between terminals | C_T | 170 | 170 | 170 | pF | $V_R=0, f=1MHz$ |

Typical Characteristics

